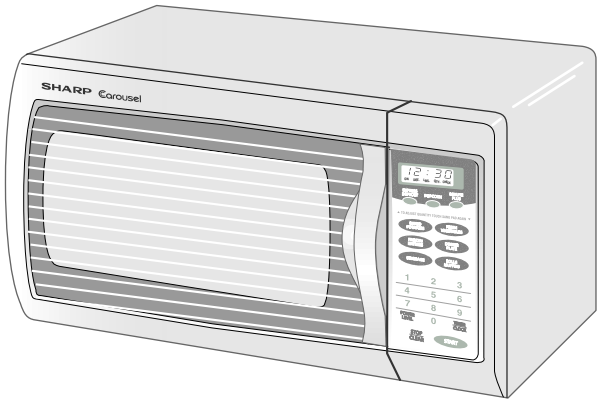
SHARP

SUPPLEMENTAL SERVICE MANUAL

S2204R209FPW/

MICROWAVE OVEN



MODELS R-209FK R-209FW

In the interest of user-safety the oven should be restored to its original condition and only parts identical to those specified should be used.

WARNING TO SERVICE PERSONNEL: Microwave ovens contain circuitry capable of producing very high voltage and current, contact with following parts may result in a severe, possibly fatal, electrical shock. (High Voltage Capacitor, High Voltage Power Transformer, Magnetron, High Voltage Rectifier Assembly, High Voltage Harness etc..)

This is a supplemental Service Manual for Models R-209FK and R-209FW. These models are quite similar to base model R-220EW. Use this supplemental manual together with the Base Model Service Manual (Refer No. is S1101R220EPW/) for complete operation, service information, etc..

TABLE OF CONTENTS

Page

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY ..... INSIDE FRONT COVER
BEFORE SERVICING ..... INSIDE FRONT COVER
WARNING TO SERVICE PERSONNEL 1
MICROWAVE MEASUREMENT PROCEDURE 2
FOREWORD AND WARNING 3
PRODUCT DESCRIPTION 4
OPERATION 4
OVEN SCHEMATIC 5
TEST PROCEDURE 6
COMPONENT REPLACEMENT AND ADJUSTMENT PROCEDURE 7
PICTORIAL DIAGRAM 8
CONTROL PANEL CIRCUIT 9
PARTS LIST 10
PACKING AND ACCESSORIES 13

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

(a) Do not operate or allow the oven to be operated with the door open.
(b) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary: (1) interlock operation, (2) proper door closing, (3) seal and sealing surfaces (arcing, wear, and other damage), (4) damage to or loosening of hinges and latches, (5) evidence of dropping or abuse.
(c) Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.
(d) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in this manual before the oven is released to the owner.
(e) A microwave leakage check to verify compliance with the Federal Performance Standard should be performed on each oven prior to release to the owner.

BEFORE SERVICING

Before servicing an operative unit, perform a microwave emission check as per the Microwave Measurement Procedure outlined in this service manual.
If microwave emissions level is in excess of the specified limit, contact SHARP ELECTRONICS CORPORATION immediately @1-800-237-4277.

If the unit operates with the door open, service person should 1) tell the user not to operate the oven and 2) contact SHARP ELECTRONICS CORPORATION and Food and Drug Administration's Center for Devices and Radiological Health immediately.

Service personnel should inform SHARP ELECTRONICS CORPORATION of any certified unit found with emissions in excess of 4mW/cm^2. The owner of the unit should be instructed not to use the unit until the oven has been brought into compliance.

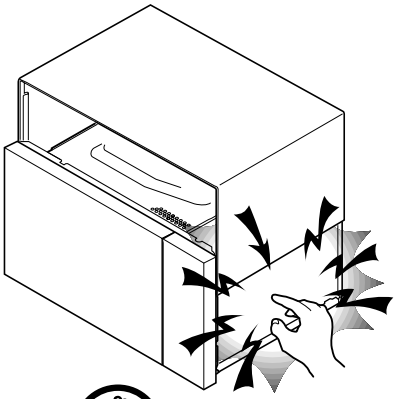
WARNING TO SERVICE PERSONNEL

Microwave ovens contain circuitry capable of producing very high voltage and current, contact with following parts may result in a severe, possibly fatal, electrical shock.

(Example)

High Voltage Capacitor, High Voltage Power Transformer, Magnetron, High Voltage Rectifier Assembly, High Voltage Harness etc..

Read the Service Manual carefully and follow all instructions.



Don't Touch !
Danger High Voltage

Before Servicing

1. Disconnect the power supply cord , and then remove outer case.
2. Open the door and block it open.
3. Discharge high voltage capacitor.

WARNING: RISK OF ELECTRIC SHOCK. DISCHARGE THE HIGH-VOLTAGE CAPACITOR BEFORE SERVICING.

The high-voltage capacitor remains charged about 60 seconds after the oven has been switched off. Wait for 60 seconds and then short-circuit the connection of the high-voltage capacitor (that is the connecting lead of the high-voltage rectifier) against the chassis with the use of an insulated screwdriver.

Whenever troubleshooting is performed the power supply must be disconnected. It may, in some cases, be necessary to connect the power supply after the outer case has been removed, in this event,

1. Disconnect the power supply cord, and then remove outer case.
2. Open the door and block it open.
3. Discharge high voltage capacitor.
4. Disconnect the leads to the primary of the power transformer.
5. Ensure that the leads remain isolated from other components and oven chassis by using insulation tape.
6. After that procedure, reconnect the power supply cord.

When the testing is completed,

1. Disconnect the power supply cord, and then remove outer case.
2. Open the door and block it open.
3. Discharge high voltage capacitor.
4. Reconnect the leads to the primary of the power transformer.
5. Reinstall the outer case (cabinet).
6. Reconnect the power supply cord after the outer case is installed.
7. Run the oven and check all functions.

After repairing

1. Reconnect all leads removed from components during testing.
2. Reinstall the outer case (cabinet).
3. Reconnect the power supply cord after the outer case is installed.
4. Run the oven and check all functions.

Microwave ovens should not be run empty. To test for the presence of microwave energy within a cavity, place a cup of cold water on the oven turntable, close the door and set the power to HIGH and set the microwave timer for two (2) minutes. When the two minutes has elapsed (timer at zero) carefully check that the water is now hot. If the water remains cold carry out **Before Servicing** procedure and re-examine the connections to the component being tested.

When all service work is completed and the oven is fully assembled, the microwave power output should be checked and microwave leakage test should be carried out.

MICROWAVE MEASUREMENT PROCEDURE

A. Requirements:

1) Microwave leakage limit (Power density limit):
   The power density of microwave radiation emitted by a microwave oven should not exceed 1mW/cm^2 at any point 5cm or more from the external surface of the oven, measured prior to acquisition by a purchaser, and thereafter (through the useful life of the oven), 5 mW/cm^2 at any point 5cm or more from the external surface of the oven.
2) Safety interlock switches:
   Primary interlock relay and door sensing switch shall prevent microwave radiation emission in excess of the requirement as above mentioned, secondary interlock switch shall prevent microwave radiation emission in excess of 5 mW/cm^2 at any point 5cm or more from the external surface of the oven.

B. Preparation for testing:

Before beginning the actual measurement of leakage, proceed as follows:

1) Make sure that the actual instrument is operating normally as specified in its instruction booklet.

   Important:
   Survey instruments that comply with the requirement for instrumentation as prescribed by the performance standard for microwave ovens, 21 CFR 1030.10(c)(3)(i), must be used for testing.

2) Place the oven tray in the oven cavity.
3) Place the load of 275±15 ml (9.8 oz) of tap water initially at 20±5˚C (68˚F) in the center of the oven cavity.
   The water container shall be a low form of 600 ml (20 oz) beaker with an inside diameter of approx. 8.5 cm (3-1/2 in.) and made of an electrically nonconductive material such as glass or plastic.
   The placing of this standard load in the oven is important not only to protect the oven, but also to insure that any leakage is measured accurately.
4) Set the cooking control on Full Power Cooking Mode
5) Close the door and select a cook cycle of several minutes. If the water begins to boil before the survey is completed, replace it with 275 ml of cool water.

C. Leakage test:

Closed-door leakage test (microwave measurement)

1) Grasp the probe of the survey instrument and hold it perpendicular to the gap between the door and the body of the oven.
2) Move the probe slowly, not faster than 1 in./sec. (2.5 cm/sec.) along the gap, watching for the maximum indication on the meter.
3) Check for leakage at the door screen, sheet metal seams and other accessible positions where the continuity of the metal has been breached (eg., around the switches, indicator, and vents).
   While testing for leakage around the door pull the door away from the front of the oven as far as is permitted by the closed latch assembly.
4) Measure carefully at the point of highest leakage and make sure that the highest leakage is no greater than 4mW/cm^2.

NOTE: After servicing, record data on service invoice and microwave leakage report.

SERVICE MANUAL

SHARP

MICROWAVE OVEN

R-209FK/ R-209FW

FOREWORD

This Manual has been prepared to provide Sharp Electronics Corp. Service Personnel with Operation and Service Information for the SHARP MICROWAVE OVENS, R-209FK and R-209FW.

The models R-209FK and R-209FW are quite similar to base model R-220EW (Refer No. is S1101R220EPW/).

It is recommended that service personnel carefully study the entire text of this manual and the base model's manual so that they will be qualified to render satisfactory customer service.

Check the interlock switches and the door seal carefully. Special attention should be given to avoid electrical shock and microwave radiation hazard.

WARNING

Never operate the oven until the following points are ensured.
(A) The door is tightly closed.
(B) The door brackets and hinges are not defective.
(C) The door packing is not damaged.
(D) The door is not deformed or warped.
(E) There is no other visible damage with the oven.

Servicing and repair work must be carried out only by trained service personnel.

DANGER

Certain initial parts are intentionally not grounded and present a risk of electrical shock only during servicing. Service personnel - Do not contact the following parts while the appliance is energized;
High Voltage Capacitor, Power Transformer, Magnetron, High Voltage Rectifier Assembly, High Voltage Harness;
If provided, Vent Hood, Fan assembly, Cooling Fan Motor.

All the parts marked "*" on parts list are used at voltages more than 250V.

Removal of the outer wrap gives access to voltage above 250V.

All the parts marked "Δ" on parts list may cause undue microwave exposure, by themselves, or when they are damaged, loosened or removed.

SHARP ELECTRONICS CORPORATION

SHARP PLAZA, MAHWAH,
NEW JERSEY 07430-2135

PRODUCT DESCRIPTION

SPECIFICATIONS

ITEM	DESCRIPTION
Power Requirements	120 Volts 60 Hertz Single phase, 3 wire grounded
Power Consumption	1250W / Approx. 10.6 Amperes
Power Output	800 W nominal of RF microwave energy (IEC Test procedure) Operating frequency 2450 MHz
Case Dimensions	Width 18-1/8" Height 11-3/8" Depth 14-5/8"
Cooking Cavity Dimensions (0.8 Cubic feet)	Width 12-3/8" Height 8-3/8" Depth 13"
Control Complement	Touch Control System Clock (1:00 - 12:59) Timer (0 - 99 minutes 99 seconds) Microwave Power for Variable Cooking Repetition Rate; P-HI ..... Full power throughout the cooking time P-90 ..... approx. 90% of FULL Power P-80 ..... approx. 80% of FULL Power P-70 ..... approx. 70% of FULL Power P-60 ..... approx. 60% of FULL Power P-50 ..... approx. 50% of FULL Power P-40 ..... approx. 40% of FULL Power P-30 ..... approx. 30% of FULL Power P-20 ..... approx. 20% of FULL Power P-10 ..... approx. 10% of FULL Power P-0 ..... No power throughout the cooking time POPCORN pad, MINUTE PLUS pad Instant Start pads, EXPRESS DEFROST pad Number selection pads, TIMER/CLOCK pad POWER LEVEL pad STOP/CLEAR pad, START pad
Oven Cavity Light	Yes
Safety Standard	UL Listed. FCC Authorized DHHS Rules, CFR, Title 21, Chapter 1, Subchapter J

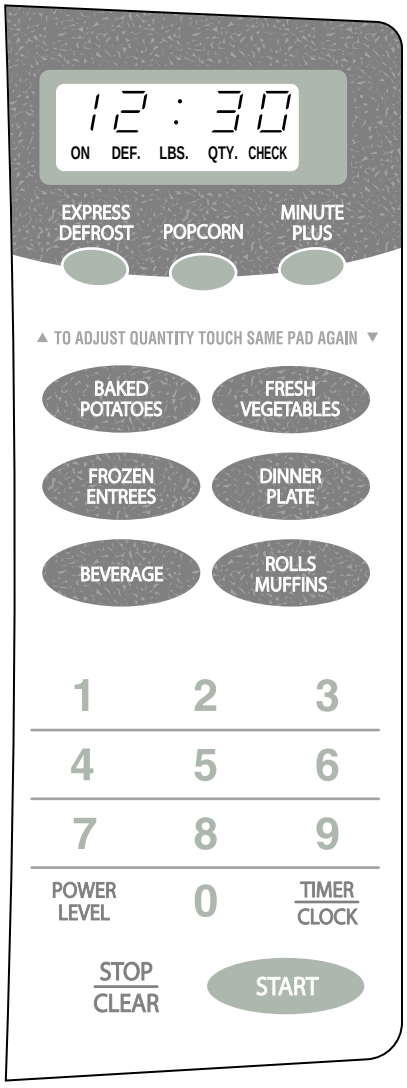
OPERATION

DESCRIPTION OF OPERATING SEQUENCE

POWER OUTPUT REDUCTION

If the oven is set for more than 20 minutes at 80, 90 or 100% power level, after the first 20 minutes the power level will automatically adjust itself to 70% power to avoid overcooking.

TOUCH CONTROL PANEL



NOTE:
Some one-touch cooking features such as "MINUTE PLUS" are disabled after three minutes when the oven is not in use. These features are automatically enabled when the door is opened and closed or the STOP/ CLEAR pad is pressed.

SCHEMATIC

NOTE: CONDITION OF OVEN
1. DOOR CLOSED
2. CLOCK APPEARS ON DISPLAY

NOTE: "★" indicates components with potential above 250V.

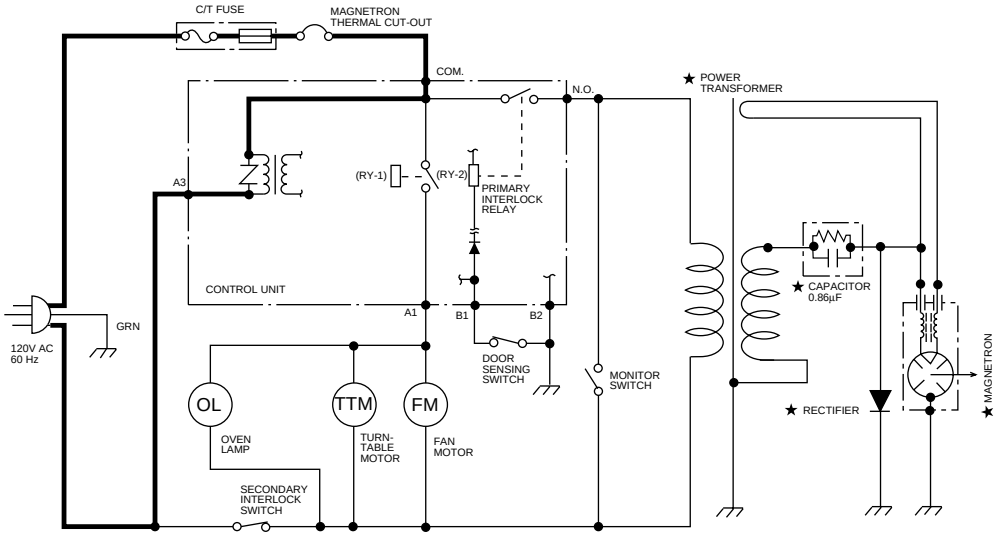


Figure O-1. Oven Schematic-Off Condition

TEST PROCEDURES

PROCEDURE LETTER	COMPONENT TEST

B **POWER TRANSFORMER TEST**

1. Disconnect the power supply cord, and then remove outer case.
2. Open the door and block it open.
3. Discharge high voltage capacitor.
4. Disconnect the primary input terminals and measure the resistance of the transformer with an ohmmeter. Check for continuity of the coils with an ohmmeter. On the R x 1 scale, the resistance of the primary coil should be less than 1 ohm and the resistance of the filament coil should be less than 1 ohm. And the resistance of the high voltage coil should be obtained in the table below.

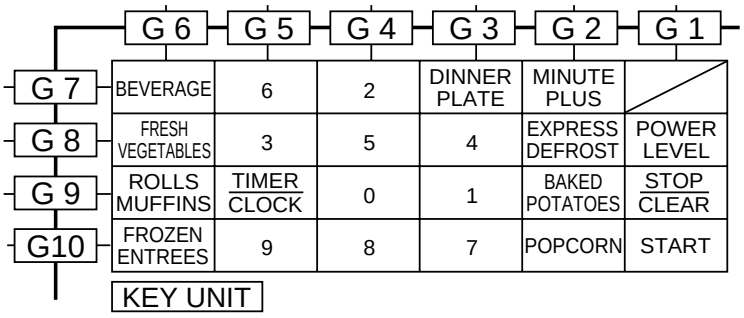
Part number of power transformer	Resistance of the high voltage coil
RTRN-A672WRZZ	Approx. 144 Ω
RTRN-A675WRZZ	Approx. 157 Ω
RTRN-A646WRZZ	Approx. 132 Ω

5. Reconnect all leads removed from components during testing.
6. Reinstall the outer case (cabinet).
7. Reconnect the power supply cord after the outer case is installed.
8. Run the oven and check all functions.

(HIGH VOLTAGES ARE PRESENT AT THE HIGH VOLTAGE TERMINAL, SO DO NOT ATTEMPT TO MEASURE THE FILAMENT AND HIGH VOLTAGE.)

J **KEY UNIT TEST**

1. Disconnect the power supply cord and then remove outer case.
2. Open the door and block it open.
3. Discharge high voltage capacitor.
4. If the display fails to clear when the STOP/CLEAR pad is depressed, first verify the flat ribbon cable is making good contact, verify that the door sensing switch operates properly; that is the contacts are closed when the door is closed and open when the door is open. If the door sensing switch is good, disconnect the flat ribbon cable that connects the key unit to the control unit and make sure the door sensing switch is closed (either close the door or short the door sensing switch connector). Use the Key unit matrix indicated on the control panel schematic and place a jumper wire between the pins that correspond to the STOP/CLEAR pad making momentary contact. If the control unit responds by clearing with a beep the key unit is faulty and must be replaced. If the control unit does not respond, it is faulty and must be replaced. If a specific pad does not respond, the above method may be used (after clearing the control unit) to determine if the control unit or key pad is at fault.
5. Reconnect all leads removed from components during testing.
6. Re-install the outer case (cabinet).
7. Reconnect the power supply cord after the outer case is installed.
8. Run the oven and check all functions.



COMPONENT REPLACEMENT AND ADJUSTMENT PROCEDURE

WARNING AGAINST HIGH VOLTAGE:

Microwave ovens contain circuitry capable of producing very high voltage and current, contact with following parts may result in severe, possibly fatal, electric shock.
(Example)
High Voltage Capacitor, Power Transformer, Magnetron, High Voltage Rectifier Assembly, High Voltage Harness etc..

WARNING: **Avoid possible exposure to microwave energy. Please follow the instructions below before operating the oven.**

1. Disconnect the power supply cord.
2. Visually check the door and cavity face plate for damage (dents, cracks, signs of arcing etc.).

Carry out any remedial work that is necessary before operating the oven.
Do not operate the oven if any of the following conditions exist;
1. Door does not close firmly.
2. Door hinge, support or latch hook is damaged.
3. The door gasket or seal is damaged.
4. The door is bent or warped.
5. There are defective parts in the door interlock system.
6. There are defective parts in the microwave generating and transmission assembly.
7. There is visible damage to the oven.

Do not operate the oven:
1. Without the RF gasket (Magnetron).
2. If the wave guide or oven cavity are not intact.
3. If the door is not closed.
4. If the outer case (cabinet) is not fitted.

WARNING FOR WIRING

To prevent an electric shock, take the following precautions.
1. Before wiring,
   1) Disconnect the power supply cord.
   2) Open the door and block it open.
   3) Discharge the high voltage capacitor and wait for 60 seconds.
2. Don't let the wire leads touch to the followiong parts;
   1) High voltage parts:
      Magnetron, High voltage transformer, High voltage capacitor and High voltage rectifier assembly.
   2) Hot parts:
      Oven lamp, Magnetron, High voltage transformer and Oven cavity.
   3) Sharp edge:
      Bottom plate, Oven cavity, Waveguide flange, Chassis support and other metallic plate.
   4) Movable parts (to prevent a fault)
      Fan blade, Fan motor, Switch.
3. Do not catch the wire leads in the outer case cabinet.
4. Insert the positive lock connector until its pin is locked and make sure that the wire leads do not come off even if the wire leads are pulled.
5. To prevent an error function, connect the wire leads correctly, referring to the Pictorial Diagram.

POWER TRANSFORMER REMOVAL

1. Disconnect the power supply cord and remove outer case.
2. Open the oven door and block it open.
3. Discharge high voltage capacitor.
4. Disconnect the wire leads of main wire harness and H.V. wire (for using RTRN-A646WRZZ) from power transformer.
5. Disconnect the lead from magnetron filament.
6. Disconnect the lead(s) of the power transformer from high voltage capacitor.
7. Remove the two (2) screws holding the transformer to bottom plate from below.
8. Remove the two (2) screws holding the transformer to bottom plate from above.
9. Remove the transformer.
10. Now the power transformer is free.

Re-install
1. Rest transformer on the bottom plate with its primary terminals toward the oven face plate.
2. Secure transformer with two (2) screws to the bottom plate from above.
3. Secure transformer with two (2) screws to the bottom plate from below.
4. Re-connect wire leads (primary and high voltage) and filament leads to the power transformer, magnetron and high voltage capacitor, referring to "Pictorial Diagram".
5. Re-install outer case and check that the oven is operating properly.

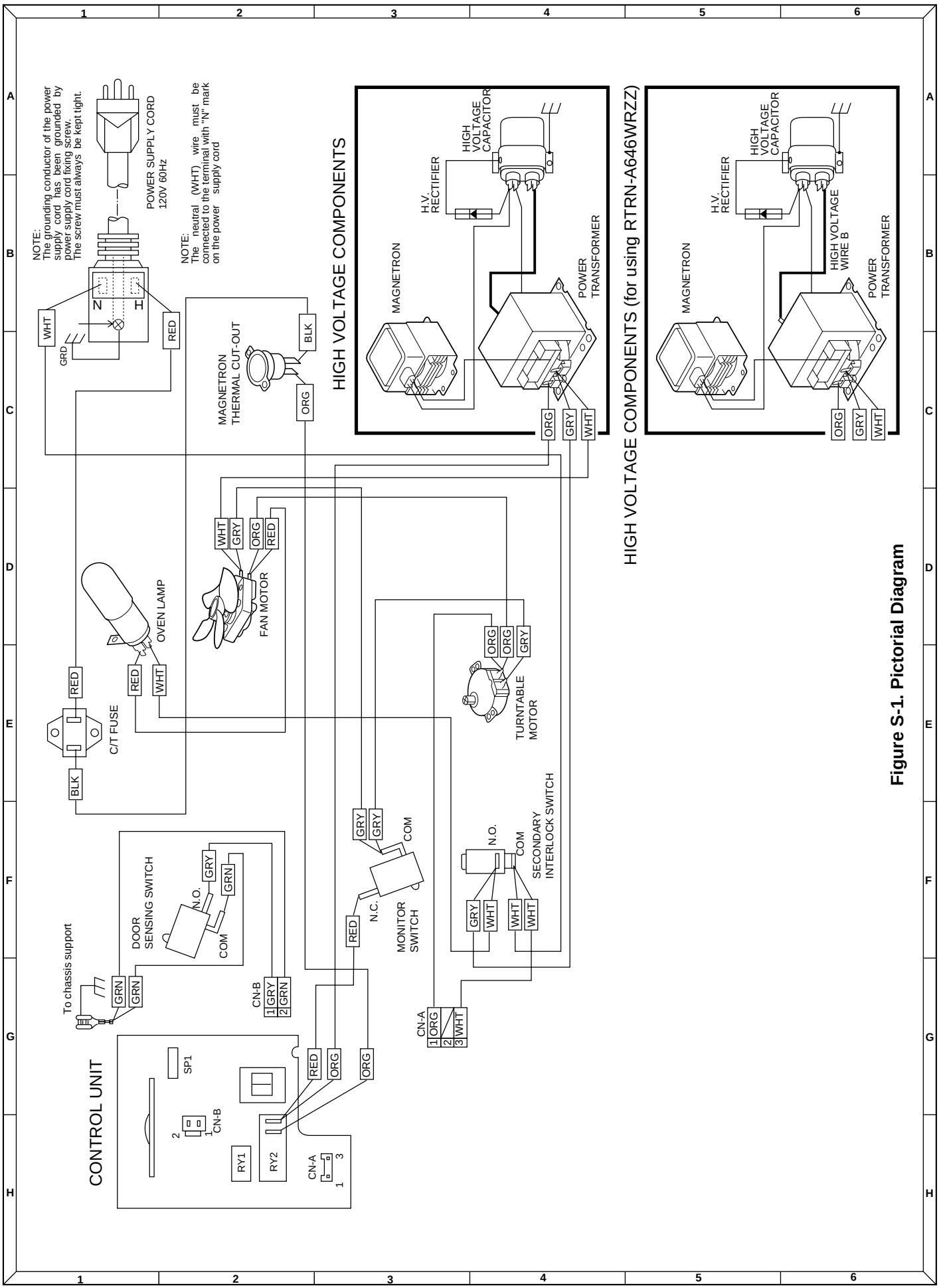


Figure S-1. Pictorial Diagram

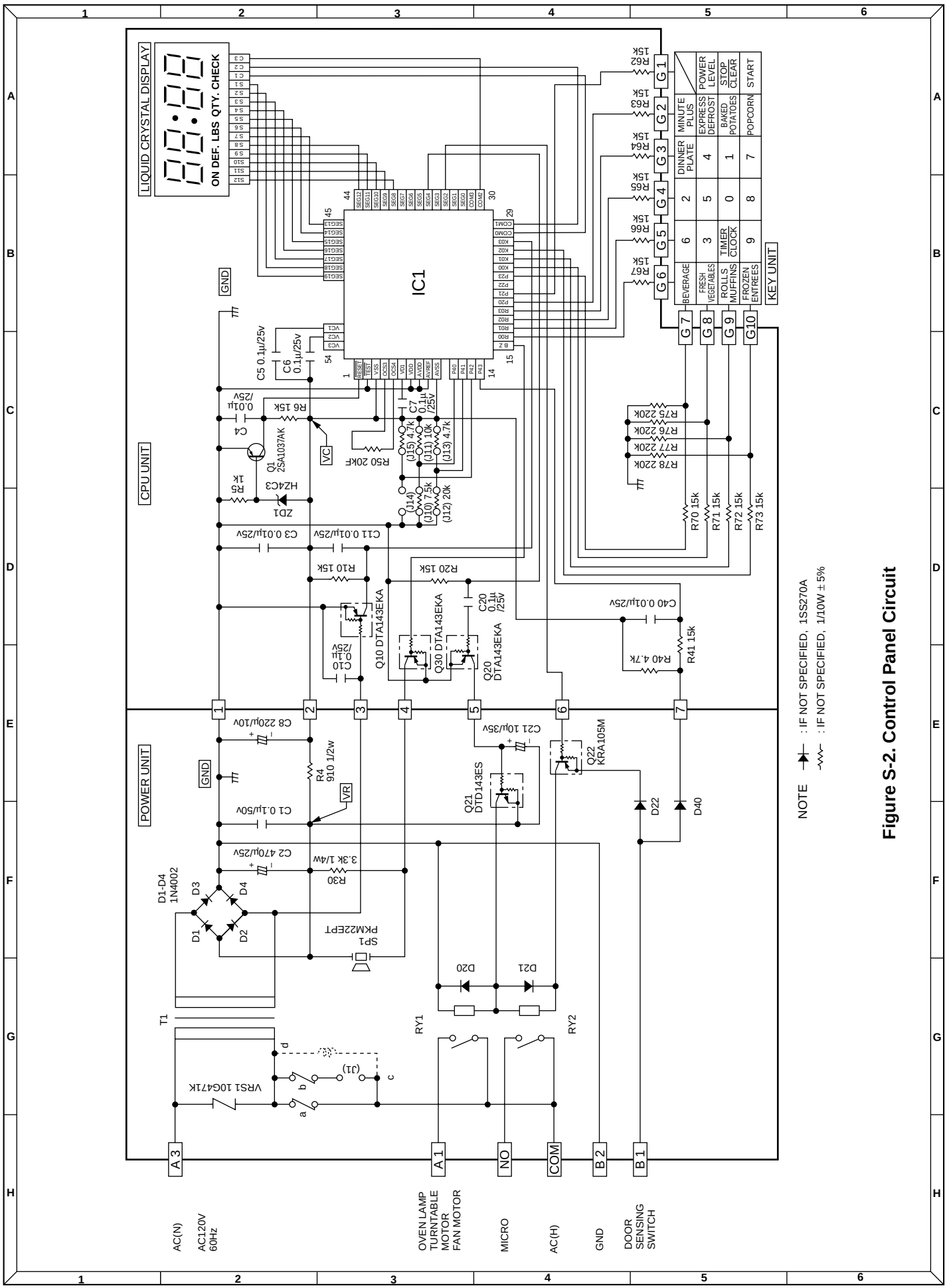


Figure S-2. Control Panel Circuit

PARTS LIST

Note: The parts marked "Δ" may cause undue microwave exposure.
The parts marked "*" are used in voltage more than 250V.

	REF. NO.		PART NO.	DESCRIPTION	Q'TY	CODE
				ELECTRIC PARTS		
	1- 1		QSW-MA137WRE0	Secondary interlock switch & door sensing switch	2	AH
	1- 2		FFS-BA025WRKZ	C/T fuse & monitor switch(AM51620C53Y1) assembly	1	AS
	1- 3		FACCDA086WREZ	Power supply cord	1	AN
	1- 3		FACCDA081WRE0	Power supply cord (Interchangeable)	1	AP
	1- 3		FACCDA082WRE0	Power supply cord (Interchangeable)	1	AV
*	1- 4		RTRN-A672WRZZ	Power transformer	1	
*	1- 4		RTRN-A675WRZZ	Power transformer (Interchangeable) for production use	1	--
*	1- 4	✶	RTRN-A646WRZZ	Power transformer (Interchangeable)	1	BH
*	1- 5		FH-DZA103WRKZ	High voltage rectifier	1	AS
*	1- 5		FH-DZA081WRK0	High voltage rectifier (Interchangeable)	1	AQ
*	1- 5		FH-DZA082WRK0	High voltage rectifier (Interchangeable)	1	AQ
*	1- 5		FH-DZA087WRK0	High voltage rectifier (Interchangeable)	1	AQ
*	1- 6		RC-QZA228WRE0	High voltage capacitor	1	AT
*	1- 6		RC-QZA201WRE0	High voltage capacitor (Interchangeable)	1	AW
*	1- 6		RC-QZA284WRZZ	High voltage capacitor (Interchangeable)	1	AU
	1- 7		RMOTEA383WRE0	Fan motor	1	AV
	1- 7		RMOTEA355WRE0	Fan motor (Interchangeable)	1	AU
	1- 7		RMOTEA392WRZZ	Fan motor (Interchangeable)	1	
*Δ	1- 8		RV-MZA306WRZZ	Magnetron	1	BL
*Δ	1- 8		RV-MZA226WRE0	Magnetron (Interchangeable)	1	BE
	1- 9		RLMPTA082WRZZ	Oven lamp	1	AL
	1-10		RMOTDA186WRE0	Turntable motor	1	AW
	1-10		RMOTDA211WRE0	Turntable motor (Interchangeable)	1	AS
	1-10		RMOTDA229WRE0	Turntable motor (Interchangeable)	1	AQ
	1-11		RTHM-A116WRE0	Thermal cut-out 125˚C (MG)	1	AK
	1-11		RTHM-A078WRE0	Thermal cut-out 125˚C (MG) (Interchangeable)	1	AK
	1-11		RTHM-A098WRE0	Thermal cut-out 125˚C (MG) (Interchangeable)	1	AK

✶ **High voltage wire B (Ref. 6- 6** QW-QZA242WRZZ**) should be needed to use this power transformer.**

				CABINET PARTS		
	2- 1		GCABUA756WRPZ	Outer case cabinet [R-209FK]	1	BC
	2- 1		GCABUA696WRP0	Outer case cabinet [R-209FW]	1	AY
	2- 2		GDAI-A304WRW0	Bottom plate	1	AF
	2- 3		GLEGPA074WRE0	Foot	2	AC
				CONTROL PANEL PARTS		
	3- 1		DPWBFC196WRUZ	Control unit	1	BD
	3- 2		FPNLCB638WRKZ	Control panel frame with key unit [R-209FK]	1	
	3- 2		FPNLCB639WRKZ	Control panel frame with key unit [R-209FW]	1	
	3- 2-1		FUNTKB112WREZ	Key unit [R-209FK]	1	
	3- 2-1		FUNTKB113WREZ	Key unit [R-209FW]	1	
	3- 3		QCNC-A013WRZZ	Rubber connector	1	AE
	3- 4		RLCDSA089DRZZ	Liquid crystal display	1	AM
	3- 5		XEPSD30P08XS0	Screw; 3mm x 8mm	3	AA
				OVEN PARTS		
Δ	4- 1		PHOK-A105WRF0	Latch hook	1	AL
	4- 2		LANGQA530WRWZ	Light mount plate	1	AP
	4- 3		PCUSUA502WRP0	Waterproof cushion	2	AD
	4- 4		LBNDKA038WRP0	Capacitor holder	1	AF
	4- 5		NFANJA029WRE0	Fan blade	1	AL
	4- 6		PDUC-A694WRF0	Fan duct	1	AG
Δ	4- 7		**********	Oven cavity **(Not replaceable part)**	1	--
	4- 8		GLEGPA073WRF0	Leg	1	AD
	4- 9		LANGTA318WRP0	Chassis support	1	AE
	4-10		PCUSGA389WRP0	Cushion	1	AG
	4-11		PCOVPA276WRE0	Waveguide cover	1	AM
	4-12		PCOVPA342WRF0	B-cover Right	1	AH
	4-13		PCOVPA343WRF0	B-cover Left	1	AH
	4-14		PCUSUA443WRP0	Cushion	2	AE
	4-15		PDUC-A700WRF0	Air separator	1	AN
	4-16		PPACGA097WRE0	O-ring	1	AG
	4-17		PCUSUA474WRP0	Cushion	1	AC
	4-18		PCUSGA133WRP0	Cushion	1	AC
				DOOR PARTS		
Δ	5- 1		FDORFA321WRT0	Door panel	1	AT

	REF. NO.	PART NO.	DESCRIPTION	Q'TY	CODE
Δ	5- 2	GWAKPA772WRFZ	Door frame [R-209FK]	1	AR
Δ	5- 2	GWAKPA859WRRZ	Door frame [R-209FW]	1	
Δ	5- 3	HPNL-A746WRRZ	Door screen [R-209FK]	1	AT
	5- 3	HPNL-A777WRRZ	Door screen [R-209FW]	1	AT
Δ	5- 4	LSTPPA175WRF0	Latch head	1	AE
	5- 5	MSPRTA084WRE0	Latch spring	1	AB
	5- 6	PSHEPA622WRE0	Sealer film	1	AG
	5- 7	GCOVHA390WRF0	Choke cover	1	AK
	5- 8	XCPSD40P08000	Screw : 4mm x 8mm	4	AA

MISCLANEOUS

	6- 1	FROLPA098WRKZ	Turntable support	1	AP
	6- 1	FROLPA089WRK0	Turntable support (Interchangeable)	1	AP
	6- 2	NTNT-A107WREZ	Turntable	1	AU
	6- 2	NTNT-A094WRE0	Turntable (Interchangeable)	1	AN
	6- 3	TINSEA934WRRZ	Instruction book	1	
	6- 4	TLAB-A183WRR0	Service label	1	AB
	6- 5	FW-VZB892WREZ	Main wire harness	1	AU
*	6- 6	QW-QZA242WRZZ	High voltage wire B (using for Ref. 1-4 RTRN-A646WRZZ)	1	AF
	6- 7	TCAUAA268WRRZ	DHHS caution label	1	AC
	6- 8	TCAUAA257WRRZ	Monitor caution	1	AC

SCREWS AND WASHERS

	7- 1	XHPSD40P08K00	Screw : 4mm x 8mm	2	AA
	7- 2	LX-EZA042WRE0	Special screw	2	AB
	7- 3	LX-WZA028WRE0	Special washer	1	AB
	7- 4	XHTSD40P12RV0	Screw : 4mm x 12mm	1	AA
	7- 5	XHTSD40P08RV0	Screw : 4mm x 8mm	5	AA
	7- 6	XHPSD30P06000	Screw : 3mm x 6mm	1	AA
	7- 7	LX-CZ0052WRE0	Special screw	2	AA
	7- 8	XOTSD40P12000	Screw : 4mm x 12mm	6	AA
	7- 9	XOTSF40P08000	Screw : 4mm x 8mm [R-209FK]	4	AA
	7- 9	XOTSE40P08000	Screw : 4mm x 8mm [R-209FW]	4	AA
	7-10	LX-CZA070WRE0	Special screw (Torx tamper proof screw)	2	AC
	7-11	XHPSD40P08000	Screw : 4mm x 8mm	3	AA
	7-12	XOTSD40P08000	Screw : 4mm x 8mm	7	AA

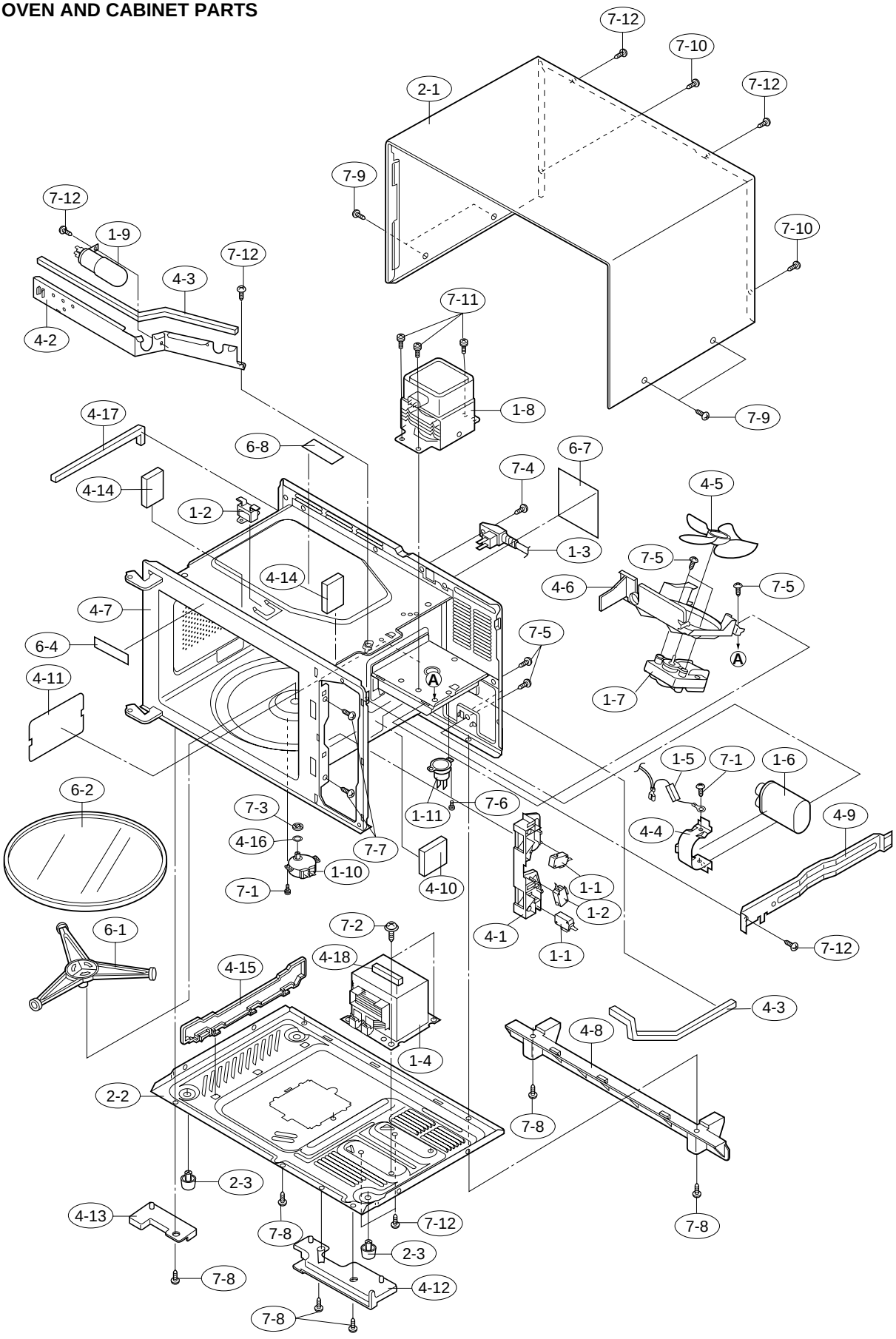
HOW TO ORDER REPLACEMENT PARTS

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

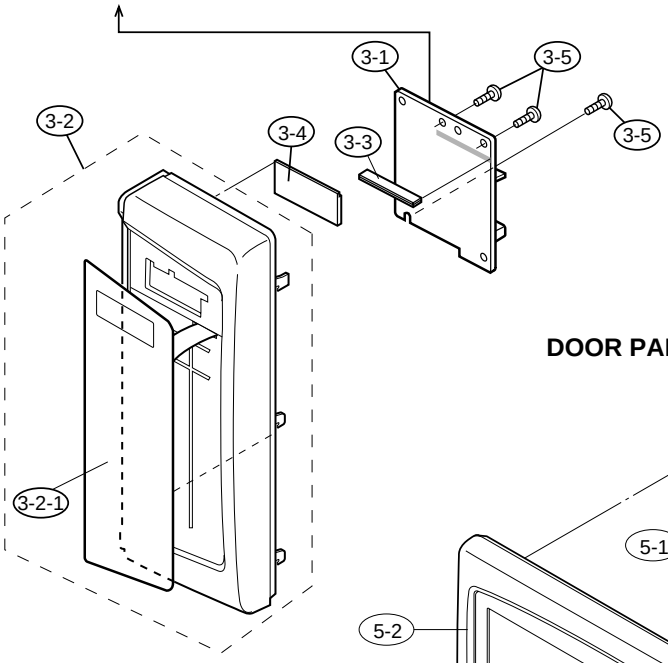
Order Parts from the authorized SHARP parts Distributor for your area.
Defective parts requiring return should be returned as indicated in the Service Policy.

OVEN AND CABINET PARTS



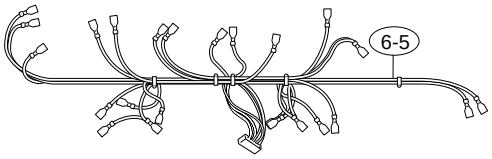
Befor attaching Control unit to Control panel, foil side of Control unit must be cleaned by ethyl-alcohol.

CONTROL PANEL PARTS



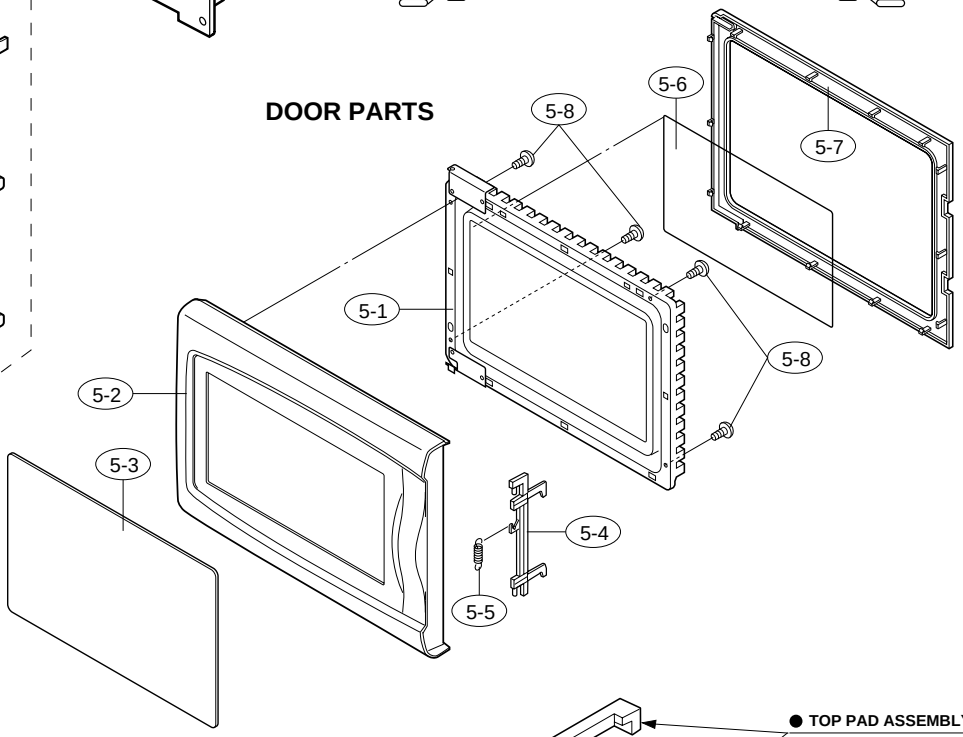
MISCELLANEOUS

Actual wire harness may be different than illustration.

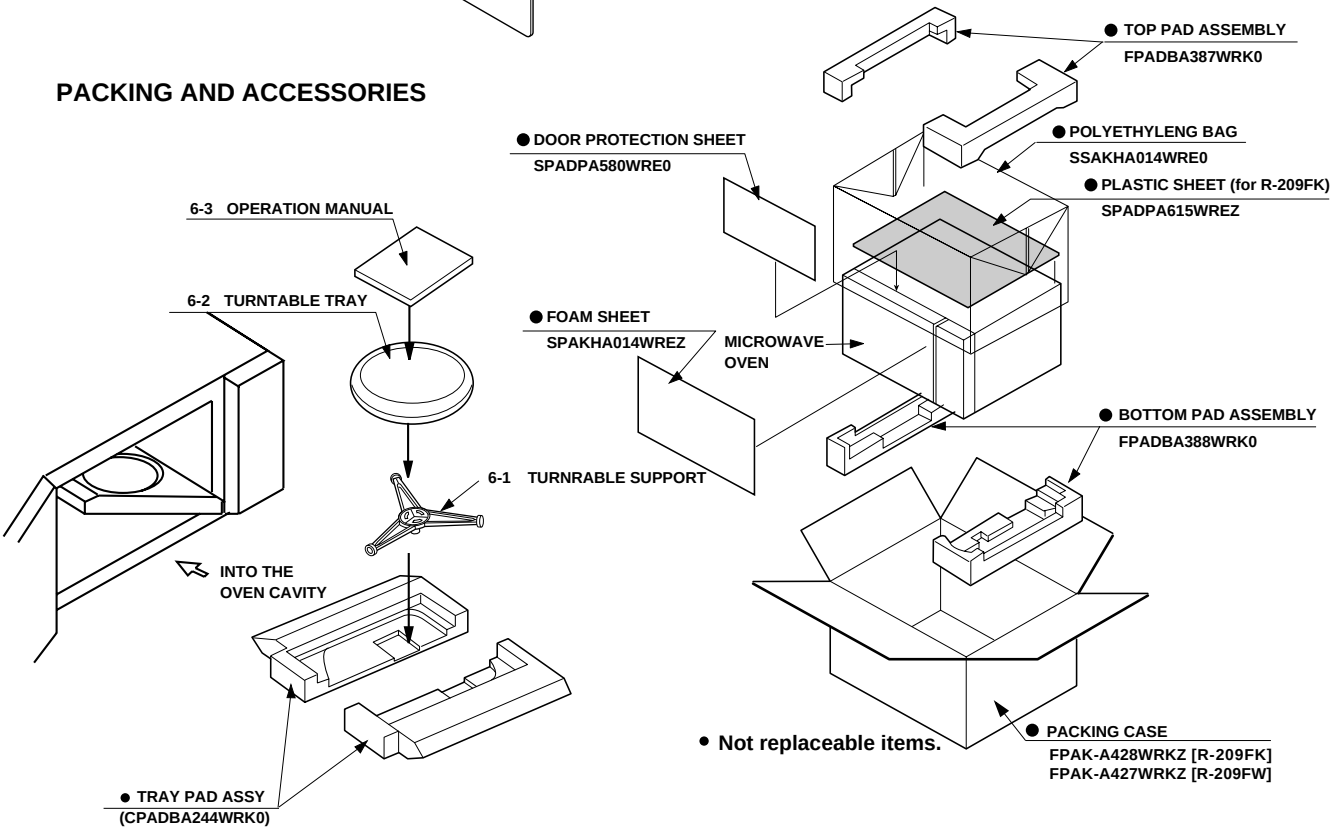


6-6 (using for Ref. 1-4 RTRN-A646WRZZ)

DOOR PARTS



PACKING AND ACCESSORIES



• Not replaceable items.

SHARP

COPYRIGHT © 2002 BY SHARP CORPORATION

ALL RIGHTS RESERVED.

No part of this publication may be reproduced, stored in retrieval systems, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission of the publisher.

2002 SHARP CORP. (2S1.700E) Printed in U.S.A